



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,625	12/19/2005	Andrei Terechko	NL02 1505 US	8452
65913	7590	10/24/2008	EXAMINER	
NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			CAO, CHUN	
			ART UNIT	PAPER NUMBER
			2115	
			NOTIFICATION DATE	DELIVERY MODE
			10/24/2008	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/561,625	<b>Applicant(s)</b> TERECHKO ET AL.	
	<b>Examiner</b> Chun Cao	<b>Art Unit</b> 2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 19-30 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27-30 is/are allowed.
- 6) ☒ Claim(s) 1,2,8-12,14-17,19,20,25 and 26 is/are rejected.
- 7) ☐ Claim(s) 3-7,13 and 21-24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**FINAL REJECTION**

1. Claims 1-17 and 19-30 are presented for examination.
2. The text of those applicable section of Title 35, U.S. Code not included in this action can be found in the prior Office Action.
3. The rejections are respectfully maintain and reproduced infra for applicant's convenience.
4. Claims 1-2, 8, 9, 11, 12, 14-20, 25 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Launiainen (Launiainen), U.S. patent no. 7,114,089.

As per claim 1, Launiainen discloses a circuit arrangement [fig. 3b], comprising a plurality of hardware resources [M1, M2, D1, D2, L1, L2, S1, S2, col. 5, lines 19-25], wherein each hardware resources has a power mode configurable between at least first and second power consumption states [normal mode, power saving mode, col. 5, lines 30-41; col. 6, lines 40-44]; and a processor [1, fig. 5] coupled the plurality of hardware resources [figures 3a, 5], the processor configured to process program code that includes at least one power control instruction [SWFU 00011000] that includes an operand [00011000 602, fig. 6] having power control information disposed therein, wherein the processor is configured to process the power control instruction by selectively setting power modes of at least two hardware resources [D1, D2] among the plurality of hardware resources [M1, M2, D1, D2, L1, L2, S1, S2, col. 5, lines 19-25] based upon the power control information disposed in the power control instruction [SWFU 00011000], and wherein the processor is further configured to maintain the power modes of the power modes of the at least two hardware resources to that specified in the power control

Art Unit: 2115

instruction while processing at least one subsequent instruction in the program code [figures 3b, 6; col. 6, lines 11-60; col. 7, line 46- col.8, line 27].

In summary, Launiainen teaches a method for using a power control instruction for selectively setting the power mode of the hardware resources. In the disclosed example, the system has 8 hardware resources [M1, M2, D1, D2, L1, L2, S1, S2, col. 5, lines 19 – 22]. The power control instruction has the format of op code [SFWU] and operand<sup>1</sup> [xxxxxxxx] wherein x is 1 or 0 for the two power states embodiment. The operand has 8 bits with one bit per hardware resource. Based upon the operand, the system can selectively change the power mode of at least two hardware resources [D1, D2, 602, fig. 6].

As per claim 2, Launiainen discloses the power control instruction further includes an opcode that uniquely identifies the power control instruction [fig. 6; col. 6, lines 11-47; col. 8, lines 10-20].

As per claim 8, Launiainen discloses that each hardware resource is selected from the group consisting of a register file, a register bank, a register, a cache, a bus interface unit, a bus, a functional unit, a functional block and an instruction decoder [fig. 3b; col. 5, lines 11-27].

As per claim 9, Launiainen discloses that the processor is configured to process explicitly parallel instructions, and wherein the power control instruction comprise an operation among a plurality of operations in an explicitly parallel instruction [col. 6, lines 11-60; col. 7, lines 47-27].

As per claim 11, Launiainen discloses a superscalar processor [col. 1, lines 59-60].

---

<sup>1</sup> It is noted that the right hand side portion of the instruction is the operand. See fig. 6. For example, MVK .S2 6, B0. Clearly 6 and B0 are the operand of the MVK instruction. Similarly, 00011000 [602] or 11011011 [601] is the operand of SWFU.

Art Unit: 2115

As per claim 12, Launiainen discloses that the processor is configured to assign a side effect to the power control instruction to limit run-time speculation thereof [col. 6, lines 11-50; col. 7, lines 47-64].

As per claim 14, Launiainen discloses that the pluralities of hardware resources are disposed in the processor [fig. 3b].

As per claim 15, Launiainen discloses that at least one hardware resource is disposed outside of the processor but on the same integrated circuit as the processor [fig. 3a].

As per claim 16, Launiainen discloses that at least one hardware resource is disposed on a separate integrated circuit from the processor [fig. 5].

As per claim 17, Launiainen discloses an integrated circuit [fig. 3a].

As to claims 19, 20, 25 and 26, claims 1, 2, 8-9 basically are the corresponding elements that are carried out the method of operating steps in claims 19, 20, 25, 26. Accordingly, claims 19, 20, 25 and 26 are rejected for the same reason as set forth in claims 1, 2, 8 and 9.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Launiainen (Launiainen), U.S. patent no. 7,114,089 in view of what was well known in the art, as exemplified by Dinechin (Dinechin), U.S. publication no. 2003/0177482.

As per claim 10, Launiainen fails to disclose that a VLIW processor and an EPIC processor.

Examiner takes Official Notice that a VLIW processor and an EPIC processor are well known in the art, evidence of which may be found in

Dinechin: figure 1; paragraph 0005.

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the type of processor to improve the functionality of the system.

***Allowable Subject Matter***

6. Claims 3-7, 13, 21-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 27-30 are allowed over prior art.

**Response to Arguments**

8. Applicant's arguments filed 7/10/2008 have been fully considered but are not persuasive.

9. The declaration filed on 7/10/2008 under 37 CFR 1.131 has been considered but is still ineffective to overcome Launiainen U.S. patent no. 7,114,089 and Dinechin U.S. publication no. 2003/0177482.

10. Based on the evidence supplied, it appears that applicant is relying on conception prior to the effective date of the reference, followed by diligence until the US filing date.

11. The evidence submitted is insufficient to establish a conception of the invention prior to the effective date of the Launiainen reference. While conception is the mental part of the inventive act, it must be capable of proof, such as by demonstrative evidence or by a complete disclosure to another. Conception is more than a vague idea of how to solve a problem. The requisite means themselves and their interaction must also be comprehended. See

*Mergenthalerv. Scudder*, 1897 C.D. 724, 81 O.G. 1417 (D.C. Cir. 1897). Per MPEP 715,

The essential thing to be shown under 37 CFR 1.131 is priority of invention and this may be done by any satisfactory evidence of the fact. **FACTS, not conclusions, must be alleged.** Evidence in the form of exhibits may accompany the affidavit

or declaration. **Each exhibit relied upon should be specifically referred to in the affidavit or declaration, in terms of what it is relied upon to show.**

A general allegation that the invention was completed prior to the date of the reference is not sufficient. Ex parte Saunders, 1883 C.D. 23, 23 O.G. 1224 (Comm'r Pat. 1883). Similarly, a declaration by the inventor to the effect that his or her invention was conceived or reduced to practice prior to the reference date, **without a statement of facts demonstrating the correctness of this conclusion, is insufficient to satisfy 37 CFR 1.131.**

When reviewing a 37 CFR 1.131 affidavit or declaration, the examiner must consider all of the evidence presented in its entirety, including the affidavits or declarations and all accompanying exhibits, records and "notes." **An accompanying exhibit need not support all claimed limitations, provided that any missing limitation is supported by the declaration itself.** Ex parte Ovshinsky, 10 USPQ2d 1075 (Bd. Pat. App. & Inter. 1989).

The affidavit or declaration and exhibits must clearly explain which facts or data applicant is relying on to show completion of his or her invention prior to the particular date. Vague and general statements in broad terms about what the exhibits describe along with a general assertion that the exhibits describe a reduction to practice "amounts essentially to mere pleading, unsupported by proof or a showing of facts" and, thus, does not satisfy the requirements of 37 CFR 1.131(b). In re Borkowski, 505 F.2d 713, 184 USPQ 29 (CCPA 1974). Applicant must give a clear explanation of the exhibits pointing out **exactly** what facts are established and relied on by applicant. 505 F.2d at 718-19, 184 USPQ at 33. See also In re Harry, 333 F.2d 920, 142 USPQ 164 (CCPA 1964) (Affidavit "asserts that facts exist but does not tell what they are or when they occurred.").

In general proof of actual reduction to practice requires a showing that the apparatus actually existed and worked for its intended purpose.

12. The declaration and the accompanying exhibit do not provide enough evidence to support all the claimed limitations prior to the reference date, therefore does not support conception of the claimed invention. For example, there is no explanation of the exhibit or positive statement on the declaration to support the limitations of all claims (claims 1-17 and 19-30). Applicant did not give a clear explanation pointing out **exactly** what facts are established and relied upon from the exhibit with respect to those particular limitations. It is to be understood that there are claimed limitations that are not sufficiently supported by the evidence provided by the declaration and the accompanying exhibit.

Art Unit: 2115

13. Per MPEP 2138.06,

**THE ENTIRE PERIOD DURING WHICH DILIGENCE IS REQUIRED MUST BE ACCOUNTED FOR BY EITHER AFFIRMATIVE ACTS OR ACCEPTABLE EXCUSES**

An applicant must account for the entire period during which diligence is required. *Gould v. Schawlow*, 363 F.2d 908, 919, 150 USPQ 634, 643 (CCPA 1966) (Merely stating that there were no weeks or months that the invention was not worked on is not enough.); *In re Harry*, 333 F.2d 920, 923, 142 USPQ 1M, 166 (CCPA 1964) (**statement that the subject matter "was diligently reduced to practice" is not a showing but a mere pleading**). **A 2-day period lacking activity has been held to be fatal.** *In re Mulder*, 716 F.2d 1+2, 1M5, 219 USPQ 189, 193 (Fed. Cir. 1983) (37 CFR 1.131 issue); *Fitzgerald v. Arbib*, 268 F.2d 763, 766, 122 USPQ 530, 532 (CCPA 1959)

(Less than 1 month of inactivity during critical period. Efforts to exploit an invention commercially do not constitute diligence in reducing it to practice. An actual reduction to practice in the case of a design for a three-dimensional article requires that it should be embodied in some structure other than a mere drawing.); *Kendall v. Searles*, 173

F.2d 986, 993, 81 USPQ 363, 369 (CCPA 1949) (**Diligence requires that applicants must be specific as to dates and facts.**).

**The period during which diligence is required must be accounted for by either affirmative acts or acceptable excuses.** *Rebstock v. Flouret*, 191 USPQ 342, 345 (Bd. Pat. Inter. 1975); *Rieser v. Williams*, 225 F.2d 419, 423, 118 USPQ 96, 100 (CCPA 1958) (**Being last to reduce to practice, party cannot prevail unless he has shown that he was first to conceive and that he exercised reasonable diligence during the critical period from just prior to opponent's entry into the field**); *Griffith v. Kanamaru*, 816 F.2d 624, 2 USPQZd 1361 (Fed. Cir.1987) (Court generally reviewed cases on excuses for inactivity including vacation extended by ill health and **daily job demands**, and held lack of university funding and personnel **are not acceptable excuses.**); *Litchfield v. Eigen*, 535 F.2d 72, 190 USPQ 113 (CCPA 1976) (budgetary limits and availability of animals for testing not sufficiently described); *Morway v. Bondi*, 203 F.2d 741, 749, 97 USPQ 318, 323 (CCPA 1953) (voluntarily laying aside inventive

concept in pursuit of other projects is generally not an acceptable excuse although there may be circumstances creating exceptions); *Anderson v. Crowther*, 152 USPQ 504, 512 (Bd. Pat. Inter. 1965) (preparation of routine periodic reports covering all accomplishments of the laboratory insufficient to show diligence); *Wu v. Jucker*, 167

USPQ 467, 472-73 (Bd. Pat. Inter. 1968) (applicant improperly allowed test data sheets to accumulate to a sufficient amount to justify interfering with equipment then in use on another project); *Tucker v. Natta*, 171 USPQ 494,498 (Bd. Pat. Inter. 1971) (“[a]ctivity directed toward the reduction to practice of a genus does not establish, prima facie, diligence toward the reduction to practice of a species embraced by said genus”); *Justus v. Appenzeller*, 177 USPQ 332, 34G.1 (Bd. Pat. Inter. 1971) (Although it



Art Unit: 2115

is possible that patentee could have reduced the invention to practice in a shorter time by relying on stock items rather than by designing a particular piece of hardware, patentee exercised reasonable diligence to secure the required hardware to actually reduce the invention to practice. "[I]n deciding the question of diligence it is immaterial that the inventor may not have taken the expeditious course....").

The diligence of attorney in preparing and filing patent application inures to the benefit of the inventor. Conception was established at least as early as the date a draft of a patent application was finished by a patent attorney on behalf of the inventor. Conception is less a matter of signature than it is one of disclosure. Attorney does not prepare a patent application on behalf of particular named persons, but on behalf of the true inventive entity. **Six days to execute and file application is acceptable.** Haskell v. Coleburne, 671 F.2d 1362, 213 USPQ 192, 195 (CCPA 1982). See also Bey v. Kollonitsch, 866 F.2d 1024, 231 USPQ 967 (Fed. Cir. 1986) (Reasonable diligence is all that is required of the attorney. **Reasonable diligence is established if attorney worked reasonably hard on the application during the continuous critical period. If the attorney has a reasonable backlog of unrelated cases which he takes up in chronological order and carries out expeditiously, that is sufficient.** Work on a related case(s) that contributed substantially to the ultimate preparation of an application can be credited as diligence.).

The evidence submitted is insufficient to establish diligence from a date prior to the effective date of the Launiainen reference (October 4, 2002) to the US effective filing date of this application (December 4, 2002) because there are several periods lacking activity (**a 2-day period lacking activity has been held to be fatal**).

In declarations and the remark, applicant merely provided blanket statements to support diligence between October 4, 2002 to December 4, 2002, without being specific as to dates and facts. Furthermore, it is noted that applicant's daily job demands (applicant's normal workload) are not acceptable excuses for inactivity. Since In declarations and the remark did not cover all the specifics as to dates and facts, they are insufficient to establish diligence October 4, 2002 to December 4, 2002.

There is no activity between October 4, 2002 to December 4, 2002, and there is no statement by the applicant declaring "any period between October 4, 2002 to December 4, 2002

Art Unit: 2115

during which the invention was not worked on was due to normal workload associated with the applicant".

14. **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun Cao whose telephone number is 571-272-3664. The examiner can normally be reached on Monday-Friday from 7:30 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is 571-272-2100.

Art Unit: 2115

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Oct. 17, 2008

/Chun Cao/

Primary Examiner, Art Unit 2115